Introduction:
Sepsis and septic shock is a leading cause of mortality in the intensive care unit. We tried to evaluate a novel Hemoperfusion cartridge through a retrospective evaluation of patient’s data in our centre. We used it as an adjuvant therapy in our patients with Sepsis and septic shock due to varied causes. The aim of this study was to evaluate the efficacy of therapeutic Hemoperfusion cartridge (HC-Foshan Biosun Medical®) in the management of patients with sepsis.

Methods:
We retrospectively analysed data of Group 1 (n=30 Sepsis) and Group 2 (n=30 sepsis+Hemoperfusion; sepsis treated with Hemoperfusion cartridge) admitted between 2015 to 2018. Group 2 had received Hemoperfusion cartridge as adjuvant therapy along with standard of care. Demographic data, procalcitonin and leukocyte levels before and after therapeutic Hemoperfusion cartridge were recorded.

Results:
While the mean duration of CVVHDF was 96.4 hours, the duration of Hemoperfusion cartridge (application was 32.1±16.4 hours). Among 30 patients who survived 25 patients were administered hemoperfusion cartridge within 12 hours of ICU admission. There was a significant reduction in scores like APACHE and SOFA score post Hemoperfusion cartridge therapy procalcitonin and leucocyte levels after therapeutic Hemoperfusion cartridge were found significantly lower than the pretreatment values (respectively p=0.001, p=0.001). Retrospective analysis showed significant reduction of vasopressors, and improvement in MAP in Group2.

Conclusion:
Therapeutic Hemoperfusion cartridge with cytokine removal applied with CVVHDF in septic patients have positive contributions to provide survival advantage.

References: